

CLAIMS:

1. A portable remote control device for a locomotive remote control system, the locomotive remote control system having a locomotive control device mounted
5 on-board a locomotive, said portable remote control device comprising:
 - an input for receiving command data indicative of speed information for transmission to the locomotive control device;
 - a control unit that is in communication with said input for receiving the command data indicative of speed information, said control unit being
10 operative:
 - a) to derive a specific speed associated to the command data, the specific speed being a configurable parameter; and
 - b) to generate digital command signals for instructing the locomotive to acquire the specific speed;
 - 15 - a transmission unit in communication with said control unit for receiving the digital command signals and for generating an RF transmission conveying the digital command signals to the locomotive control device.
2. A portable remote control device as defined in claim 1, said device further
20 comprising a second input for receiving signals containing programming information, said programming information being operative for causing the specific speed associated to the command data to be modified.
3. A portable remote control device as defined in claim 2, wherein said second
25 input is adapted for receiving wireless signals.
4. A portable remote control device as defined in claim 3, wherein said second input includes an infrared communication port.
- 30 5. A portable remote control device as defined in claim 3, wherein said second input includes a radio frequency receiver.

6. A portable remote control device as defined in claim 3, wherein said second input includes a wire-line connection.
7. A portable remote control device as defined in claim 1, wherein said command data indicative of speed information includes command data for instructing the locomotive to acquire a maximum speed.
8. A portable remote control device as defined in claim 7, wherein said control unit is operative to derive a specific speed associated to the command data for instructing the locomotive to acquire the maximum speed, the specific speed associated to the maximum speed being a configurable parameter.
9. A portable remote control device as defined in claim 8, wherein said specific speed is a first specific speed, said first specific speed being associated to the maximum speed when said locomotive is in a first geographical region, said control unit being operative to derive a second specific speed associated to the maximum speed when the locomotive is in a second geographical region.
10. A portable remote control device as defined in claim 9, wherein a Global Positioning System (GPS) is used to determine whether the locomotive is in the first geographical region or the second geographical region.
11. A portable remote control device as defined in claim 10, wherein a transponder system is used to determine whether the locomotive is in the first geographical region or the second geographical region.
12. A portable remote control device as defined in claim 9, wherein said first geographical region is a switchyard, and said second geographical region is outside a switchyard.

13. A portable remote control device as defined in claim 2, wherein said command data indicative of speed information includes command data for instructing the locomotive to acquire one of a plurality of predetermined speeds.
- 5 14. A portable remote control device as defined in claim 9, wherein said control unit is operative to derive a specific speed associated to each of the plurality of predetermined speeds, the specific speeds associated to the plurality of predetermined speeds being configurable parameters.
- 10 15. A portable remote control device as defined in claim 2, further comprising a user interface that is operative for receiving from a user command data indicative of speed information.
- 15 16. A locomotive control device suitable for use in a locomotive having a control interface, said locomotive control device comprising:
- a control entity;
 - a communication entity in communication with said control entity, said communication entity being adapted for receiving signals from a remote control unit over a wireless communication link conveying the command data indicative of speed information;
 - said control entity being responsive to the signal conveyed by the remote control device for:
 - a) deriving a specific speed associated to the command data, the specific speed being a configurable parameter; and
 - 20 b) issuing local control signals to the control interface for causing the locomotive to move at the specific speed.
- 25
17. A locomotive control device as defined in claim 16, said locomotive control device further comprising an input for receiving signals containing programming information, said programming information being operative for causing the specific speed associated to the command data to be modified.
- 30

18. A locomotive control device as defined in claim 17, wherein said input is adapted for receiving wireless signals.
19. A locomotive control device as defined in claim 18, wherein said input is adapted for receiving radio frequency signals.
20. A locomotive control device as defined in claim 18, wherein said input includes an infrared sensor.
21. A locomotive control device as defined in claim 17, wherein said input includes a wire-line connection.
22. A locomotive control device as defined in claim 16, wherein said command data indicative of speed information includes command data for instructing the locomotive to acquire a maximum speed.
23. A locomotive control device as defined in claim 22, wherein said control unit is operative to derive a specific speed associated to the maximum speed, the specific speed associated to the maximum speed being a configurable parameter.
24. A locomotive control device as defined in claim 23, wherein said specific speed is a first specific speed, said first specific speed being associated to the maximum speed when said locomotive is in a first geographical region, said control unit being operative to derive a second specific speed associated to the maximum speed when the locomotive is in a second geographical region.
25. A locomotive control device as defined in claim 24, wherein a Global Positioning System (GPS) is used to determine whether the locomotive is in the first geographical region or the second geographical region.

26. A locomotive control device as defined in claim 24, wherein a transponder system is used to determine whether the locomotive is in the first geographical region or the second geographical region.
- 5 27. A locomotive control device as defined in claim 26, wherein said first geographical region is a switchyard, and said second geographical region is outside a switchyard.
- 10 28. A locomotive control device as defined in claim 16, wherein said command data indicative of speed information includes command data for instructing the locomotive to acquire one of a plurality of predetermined speeds.
- 15 29. A locomotive control device as defined in claim 28, wherein said control unit is operative to derive a specific speed associated to each of the plurality of predetermined speeds, the specific speeds associated to the plurality of predetermined speeds being configurable parameters.
30. A remote control system for a locomotive having a control interface, said remote control system comprising:
- 20 - a portable remote control device having:
- a) an input for receiving command data indicative of speed information;
- b) a control unit that is in communication with said input for receiving the command data indicative of speed information and generating digital command signals for controlling the speed of the locomotive;
- 25 c) a transmission unit in communication with said control unit for receiving the digital command signals and for generating an RF transmission conveying the digital command signals to a locomotive control device;
- 30 - a locomotive control device suitable to be mounted on board a locomotive, said locomotive control device having:

- a) a control entity;
 - b) a communication entity in communication with said control entity, said communication entity being adapted for receiving over a wireless communication link the command signals indicative of speed information conveyed by the remote control device;
 - c) said control entity being responsive to the signal conveyed by the remote control device for:
 - i) deriving a specific speed associated to the command data, the specific speed being a configurable parameter; and
 - ii) issuing local control signals to the control interface for causing the locomotive to move at the specific speed.
31. A portable remote control device for a locomotive control system, the locomotive control system having a locomotive control device mounted on-board a locomotive, said remote control device comprising:
- a speed input having a plurality of possible settings individually selectable by a user;
 - a control unit in communication with said speed input for receiving from said speed input data indicative of a setting selected by a user among said plurality of possible settings, said control unit including a speed map to associate a specific speed to the setting selected by the user,
 - a transmission unit to generate an RF signal for conveying the specific speed to the locomotive control device;
 - said speed map being user programmable to allow a user to change the specific speeds associated with the respective speed settings of said speed input.
32. A portable remote control device as defined in claim 31, said device further comprising a second input for receiving signals containing programming information, said programming information being operative for causing the specific speeds associated with the respective speed settings of said speed input to be changed.

33. A portable remote control device as defined in claim 32, wherein said second input is adapted for receiving wireless signals.
- 5 34. A portable remote control device as defined in claim 33, wherein said second input includes an infrared communication port.
35. A portable remote control device as defined in claim 33, wherein said second input includes a radio frequency receiver.
- 10 36. A portable remote control device as defined in claim 33, wherein said second input includes a wire-line connection.
- 15 37. A portable remote control device as defined in claim 31, wherein said plurality of possible settings includes a maximum speed setting.
38. A portable remote control device as defined in claim 37, wherein said control unit is operative to derive a specific speed associated to the maximum speed setting selected by the user.
- 20 39. A portable remote control device as defined in claim 38, wherein the specific speed associated to the maximum speed when said locomotive is in a first geographical region is different from the specific speed associated to the maximum speed when the locomotive is in a second geographical region.
- 25 40. A portable remote control device as defined in claim 39, wherein a Global Positioning System (GPS) is used to determine whether the locomotive is in the first geographical region or the second geographical region.
- 30 41. A portable remote control device as defined in claim 40, wherein a transponder system is used to determine whether the locomotive is in the first geographical region or the second geographical region.

42. A portable remote control device as defined in claim 39, wherein said first geographical region is a switchyard, and said second geographical region is outside a switchyard.

5

43. A portable remote control device as defined in claim 32, further comprising a user interface that is operative for receiving from a user the speed input data indicative of a setting selected by a user.

10